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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/925,578	08/09/2001	Bruce Leroy Beukema	AUS920010473US1	3040

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EXAMINER

WALSH, JOHN B

ART UNIT PAPER NUMBER

2151

DATE MAILED: 05/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/925,578	Applicant(s) BEUKEMA ET AL.	
	Examiner John B. Walsh	Art Unit 2151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-35 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,944,786 to Kashyap.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C.

102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

As concerns claim 1, a method of multicasting a data packet in a system area network, comprising: receiving the data packet, wherein the data packet includes an identifier of a multicast group (column 6, lines 45-46, 49-50); identifying a plurality of queue pairs (column 6, line 10; column 5, line 52) that are members of the multicast group (column 5, lines 51-56); and delivering the data packet to each of the plurality of queue pairs that are members of the multicast group (column 5, lines 59-64).

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As concerns claims 2, 13 and 24, wherein the data packet is received in a channel adapter (column 1, line 32) of an end node, the end node being a final destination for the data packet within the system area network (502).

As concerns claims 3, 14 and 25, wherein the data packet is received in a channel adapter of an end node (column 6, lines 11-12), wherein the data packet originates from the end node, and, wherein delivering the data packet to each of the plurality of queue pairs that are members of the multicast group includes replicating the data packet for each of the plurality of queue pairs that are internal to the end node (inherent in multicasting to replicate a packet and send the packet to its destination which is a group member, regardless if it is in the same node as long as it is within the group).

As concerns claims 4, 15 and 26, further comprising: decoding the data packet; and storing the data packet in a multicast packet buffer (column 4, lines 6-14, 43-50; column 5, line 60-64).

As concerns claims 5, 16 and 27, wherein decoding the data packet and storing the data packet in the multicast packet buffer are performed by port logic (column 6, lines 10-19).

As concerns claims 6, 17 and 28, wherein decoding the data packet and storing the data packet in the multicast packet buffer are performed by channel adapter logic (column 6, lines 10-19; 418).

As concerns claims 7, 18 and 29, wherein each of the plurality of queue pairs comprises a send queue and receive queue (column 5, line 59), and wherein identifying the plurality of queue pairs includes determining which queue pairs are associated with a destination local identifier in the data packet (column 6, lines 56-66).

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As concerns claims 8, 19 and 30, wherein determining which queue pairs are associated with the destination local identifier includes using a destination local identifier to queue pair lookup table (column 6, lines 56-66).

As concerns claims 9, 20 and 31, wherein the destination local identifier to queue pair lookup table contains a fixed number of queue pair identifier columns per destination local identifier (column 6, line 1; column 6, lines 56-66; at a particular point in time the number is fixed).

As concerns claims 10, 21 and 32, wherein the destination local identifier to queue pair lookup table contains a flexible number of queue pair identifier columns per destination local identifier (column 6, lines 56-66; number can change over time therefore it is flexible).

As concerns claims 11, 22 and 33, wherein one of the queue pair identifier columns associated with the destination local identifier serves as a link to another entry in the destination local identifier to queue pair lookup table (column 6, lines 56-66).

As concerns claims 12 and 23, a computer program product in a computer readable medium for multicasting a data packet in a system area network, comprising: first instructions/means for receiving the data packet (figures 2-4), wherein the data packet includes an identifier of a multicast group (column 6, lines 45-46, 49-50); second instructions/means for identifying a plurality of queue pairs that are members of the multicast group (column 6, line 10; column 5, lines 52, 59-64); and third instructions/means for delivering the data packet to each of the plurality of queue pairs that are members of the multicast group (column 5, lines 59-64).

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As concerns claim 34, the method of claim 1, wherein receiving the data packet includes: determining if there is an error in receipt of the data packet; and if there is an error in receipt of the data packet, dropping the data packet (column 5, lines 1-10).

As concerns claim 35, the method of claim 1, wherein delivering the data packet to each of the plurality of queue pairs that are members of the multicast group includes: determining if there is an error in delivering the data packet to each of the plurality of queue pairs; and dropping the data packet if an error occurs during delivery of the data packet to each of the plurality of queue pairs (column 5, lines 1-10).

Response to Arguments

3. Applicant's arguments filed March 8, 2006 have been fully considered but they are not persuasive.

The applicant argues Kashyap does not disclose identifying a plurality of queue pairs that are members of the multicast group or delivering the data packets to each of the plurality of queue pairs that are members of the multicast group. Kashyap does disclose identifying a plurality of queue pairs and delivering the data packets to each of the plurality of queue pairs (column 6, lines 3-5; column 5, lines 51-55). Kashyap does disclose the queue pairs are members of a multicast group (column 6, lines 44-50; node assigned to a multicast group, wherein a port on the node is assigned to a multicast group, therefore the QP's of that port are assigned to the multicast group).

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

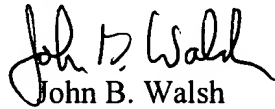
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John B. Walsh whose telephone number is 571-272-7063. The examiner can normally be reached on Monday-Wednesday from 5:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on 571-272-3939. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


John B. Walsh
Primary Examiner
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